

Roy Knabenshue

From Dirigibles to NPS

At the turn of the 20th century, one of the recognizable aviation pioneers was Roy Knabenshue. In an age where few people had seen a manned flying machine and many questioned the possibility of human flight, Knabenshue made a name for himself as a dirigible pilot and balloonist. Interested in aviation throughout his life, he later applied his knowledge in a variety of ways: he built dirigibles, managed the Wright brothers' exhibition team, and started an aviation program for the National Park Service (NPS). It was this broad range of activities, and the importance of each, that made Knabenshue's achievements so noteworthy.

Born in Lancaster, Ohio, in 1876, Roy Knabenshue developed an interest in aeronautics at an early age when a professional aeronaut performing in Columbus, Ohio, offered him a ride in his captive balloon. Knabenshue's interest in ballooning increased over the years, and he purchased his first balloon in his early twenties. Regularly employed as a "telephone man," Knabenshue supplemented his income by offering balloon rides to the public for one dollar per person.

In 1904, Knabenshue traveled to St. Louis, Missouri, to participate in the Aeronautic Competition at the World's Fair commemorating the Louisiana Purchase. In St. Louis, Knabenshue competed in the free balloon races and operated a captive balloon concession. Another contestant in the Aeronautic Competition was Captain Thomas Baldwin. Baldwin, who was an early balloonist from California, built the first dirigible in the United States, the *California Arrow*, and entered it in the Aeronautic Competition. Baldwin first flew the *California Arrow* in California, and then shipped it to St. Louis to prepare for the competition. During trial flights, Baldwin discovered that he was unable to pilot the dirigible due to his recent weight gain, and he searched for a pilot. Knabenshue readily volunteered, and on October

25, 1904, he flew the *California Arrow* for 11 miles in one hour and thirty-one minutes, winning the competition.

After his spectacular flight in St. Louis, Knabenshue maintained his association with Baldwin and began touring fairs and air shows in the western United States, demonstrating dirigibles to awestruck audiences. In one event in Los Angeles, California, Knabenshue piloted the *California Arrow* in a race with an automobile, crossing the finish line with a two-minute lead.

In 1905, based on his successful exhibition flights, Knabenshue decided to set out on his own, and he made plans to tour the eastern United States after constructing his own dirigible. He returned home to Toledo, Ohio, and immediately built a dirigible he named *Toledo I*. In its first flight, he flew from the Dorr Street Fairgrounds to the roof of the 10-story Spitzer Building in downtown Toledo, winning a prize of \$500 from A.L. Spitzer who had offered the reward to the first airman who could land on the roof of his building. Over the next several years, Knabenshue built a total of three dirigibles and established a troupe that toured the eastern United States making exhibition flights.

Fascinated with anything having to do with aviation, Knabenshue read with interest about the work of Wilbur and Orville Wright and their invention of a power-driven, heavier-than-air machine. With his successful experience conducting exhibition flights of dirigibles, Knabenshue became excited about the possibility of exhibiting airplanes. He first contacted the Wright brothers in 1908 about purchasing airplanes from them to use for exhibition purposes. At that time, the brothers only had one airplane constructed and that was already sold to the United States Army Signal Corps. However, Wilbur and Orville agreed to contact Knabenshue if they were ever interested in entering the exhibition business.

In 1909, the Wright brothers, with some New York investors, formed The Wright Company to manufacture airplanes. In addition to manufacturing, the company entered the exhibition business, and in March 1910, they followed up on the brothers' earlier promise and contracted with Knabenshue to manage their exhibition team. While Knabenshue planned and scheduled public exhibitions, Orville trained the pilots in Dayton, Ohio, at Huffman Prairie Flying Field.



Col. W.R.
Winston and Roy
Knabenshue.
Photo courtesy
National Air and
Space Museum,
Smithsonian
Institution.

The Wright Exhibition Company participated in exhibition flights throughout the country for the next year and a half. Their main competitors were the members of the exhibition team from the Glenn Curtiss Company. The pilots of both teams competed to see who could complete the most miraculous stunts, fly the highest, or achieve the fastest speed. This proved dangerous, and many of the exhibition pilots suffered tragic accidents. Based partially on this fact, The

Wright Company decided to close the exhibition business in November 1911.

With the termination of the exhibition team, the association between the Wright brothers and Knabenshue drew to a close. In describing Knabenshue's experience as their general manager, Orville found him to be "very successful in this. He not only was able to secure contracts where men under him failed, but he also succeeded in making the contracts satisfactory to both parties.... The business that he handled for us was very profitable."^{*}

Knabenshue next moved to Los Angeles, California, and booked independent pilots for exhibition flights. As the exhibition business began to decline, Knabenshue turned his attention to building a commercial dirigible capable of carrying 13 passengers. Completed in 1913, Knabenshue hoped to use the dirigible to start a passenger flight service. When there was not enough transportation business, Knabenshue turned once again to exhibiting dirigibles throughout the United States.

Continuously associated with lighter-than-air flight, Knabenshue worked during World War I building captive observation balloons for the U.S. Army and later for the B.F. Goodrich Company. In 1933, Knabenshue was employed by the NPS as senior aeronautical clerk. In this position, he developed a plan for the NPS to test autogiro airplanes in the national parks for spot-

ting forest fires, observing the progress of fires, and suppressing fires. Additional suggestions for use of the airplanes included surveying remote areas proposed as additions to the national park system, aerial photography, wildlife surveys, and emergency transportation. The NPS proposed to acquire four autogiros, one for each region.

Two autogiros were eventually transferred from the U.S. Army to the NPS in 1941, and two pilots were trained to operate them. The first pilot was Dave Driscoll, who worked for the NPS in Manteo, North Carolina. H. Clay MacBair was hired next. Driscoll remained in North Carolina with one autogiro, while MacBair was assigned to Boulder City, Nevada, although during the months of June to September, MacBair would be based at Yellowstone National Park.

As individuals became knowledgeable about the autogiro program, requests were submitted for the use of the planes. These included a wildlife census at Isle Royale National Park; a bighorn census at Death Valley National Monument; aerial photography of the beaches at Cape Hatteras National Seashore; an aerial survey for wilderness roads and archeological features at Natchez Trace Parkway; and many others. Due to reductions in the 1942 budget many of these projects were never completed, and the autogiro program was terminated. The airplanes were eventually transferred to the Navajo Reservation in Window Rock, Arizona. With the conclusion of the autogiro program, Knabenshue transferred from NPS headquarters to White Sands National Memorial in Alamogordo, New Mexico, where he stayed until the end of his career.

When Knabenshue retired from the NPS, it brought an end to a long career in aviation. In the many years that Knabenshue was associated with aeronautics, he saw the invention and development of new technology that changed the way we all see the world. His achievements as an early aviator and his role in the development of aviation in the United States was recognized in 1965 when he was inducted into the National Aviation Hall of Fame.

Note

- ^{*} O. Wright to E.K. Summerwell, April 14, 1917, R. Knabenshue Papers, National Air and Space Archives, Smithsonian Institution, Washington, DC.

Ann Deines is the historian at Dayton Aviation Heritage National Historical Park.